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CRISIS INVENTORY

James A. Moore, et al

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#### CRISIS INVENTORY

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#### PREFACE

This report describes the status of research being performed for the Advanced Research Projects Agency Human Resources Research Office on development of an international crisis typology for use in conducting and organizing research on crisis prediction and management. The report describes accomplishments for the period January 1, 1975 through March 31, 1975.

The work reported herein is principally concerned with the development of an international crisis typology whose classes are distinguished by important policy and theoretical differences. The objective of the research is to provide a basis for conducting and organizing research on different classes of crises.

The work should be of interest to all agencies concerned with prediction, planning and management in respect to international crises.

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#### I. SUMMARY

#### PROJECT OBJECTIVES

The project reported here reflects ARPA's interest in creating useful knowledge about international crises--episodes whose outcomes may have important effects on the future of individual nation-states and the direction of the international system. Knowledge about international crises can be useful if it can assist planners and policy makers in the difficult tasks of anticipating and planning for crises, in anticipating the likely behavior of involved nations should crises arise, and in managing crises.

One of the first tasks in a program of research on international crises is to establish the historical basis for research.

This involves compiling an inventory of prior cases of international crises, organizing these into classes that can be subjects of future research and describing trends in the occurrence of crises.

Accordingly, three objectives of the current study are to construct an inventory of post-World War II international crises, to typologize the crises on the basis of dimensions useful for organizing research, and to analyze trends in the occurrence of different types of international crises.

To be useful for the purpose of organizing future research, the typology should identify crises sharing important characteristics from a policy perspective and also from a theoretical perspective. The policy criterion requires that the typology identify crisis-types of particular interest to policy makers and planners, for example major-power crises and crises involving allies of the US. With the assistance of the typology, future research can be organized along lines of policy interests.

Policy makers and planners may be assisted by knowledge, for example, on what types of management techniques are most effective in major-power crises or any other type of crisis; or, they may wish to know what type of behavior to expect in a given type of crisis. Such questions suggest that a second criterion is applicable to the selection of dimensions. This second criterion, which we are calling the theoretical criterion, requires that the dimensions should potentially assist policy makers and planners in formulating correct predictions or plans for crisis episodes. Thus, dimensions which are theoretically related to crisis behavior patterns also can serve as useful bases in organizing research.

The policy and theoretical criteria overlap to a considerable degree. For example, a policy maker may wish to concentrate attention on major-power crises, and there is good theoretical justification for expecting such crises to evolve differently than, say, major-minor power crises. There is also theoretical justification for hypothesizing that other dimensions of less immediate policy interest can affect the course of a crisis cr the impact of different crisis management efforts. For example, the extent of economic and organizational integration between two countries may have such effects. Thus, these dimensions too should be included in a crisis typology. The inclusion of such dimensions does not detract from the policy relevance of the typology, but potentially enhances the ability of research to provide needed answers to policy questions. example, future research could determine the likely behavior patterns of nations in major-power crises, and might further discover important differences in major-power crises dependent on the degree of economic and organizational integration between the countries. Research questions can always be put in terms of dimensions relevant to a particular policy-interest at a particular time; the presence of the additional dimensions makes possible some further research probes that could result in additional useful information.

We have therefore endeavored to identify dimensions of crisis situations that reflect basic discriminations of likely policy import and dimensions having theoretical import as well. several such dimensions have been identified, and data on each have been compiled for each crisis identified in the post-War era. The remainder of this section summarizes the body of the report.

#### ACPECTS OF WORK STATEMENT COVERED IN THIS REPORT

The Work Statement of this project calls for the selection of a definition of crisis, the construction of an inventory of post-War international crises, selection of crisis dimensions and construction of a crisis taxonomy, and analysis of the structure and trends in data collected on the selected dimensions. During the first quarter of effort which this report covers, the following tasks were completed:

- definition of international crisis was formulated and operationalized;
- an inventory of 72 international crises involving
   93 selected country-pairs was compiled;
- data on 23 selected crisis dimensions for each crisis were collected.

During the second and final quarter of work, some of the selected crisis dimensions may be eliminated from consideration for use in the typology, based on analyses to determine the unique amount of information each provides. The crisis typology then will be constructed, and trends in the occurrence of different types of crises will be described.

#### DEFINITION OF INTERNATIONAL CRISIS

Several criteria guided the selection of a definition for international crisis. Among these were that the conditions required for a situation to be identified as a crisis had to be capable of being observed in available historical records; and that the definition was required to encompass episodes and situations which ordinarily are regarded as having been international crises.

International crises first were distinguished from other types of national security crises. A national security crisis arises from occurrences anywhere which pose a potential and fairly immediate threat to security. These can include foreign domestic crises, including situations within other nations that threaten US interest abroad; domestic US crises, including major civil disturbances or power failures which leave the nation insufficiently able to respond to foreign threats; and international crises, which are threatening situations that develop between countries.

Two types of definition of international crisis were considered. A "foreign policy" or "decision-making" type of definition is based on the perceptions of decision-makers, and identifies a situation as a crisis if decision-makers perceive a high threat, short decision-time and are surprised at the occurrence of the situation. A "systemic" definition is based on the presence or absence of developments which may alter important systemic conditions, irrespective of whether and in what light those developments are perceived. Both types of definition were found to satisfy the three criteria imposed on the selection of a definition. Because there are good reasons to believe that most "systemic" crises also are "foreign policy" crises, it was decided to utilize a systemic definition on the assumption that

the situations thereby identified as crises would include a large proportion of "foreign policy" crises as well.

A systemic definition therefore was formulated, a non-technical version of which is: an international crises occurs when behavior between nations emerges that is unusually threatening of violence and that is carried on in a sustained fashion under conditions of rapid action and response. Operational interpretations of the definition were specified, and these led to the identification of several post-War international crises.

#### CRISES IDENTIFIED

A total of 72 international crises were identified. There were two steps in the identification process. First, a large list of 190 possible crises was constructed from extant partial lists of "critical situations", "conflicts", "crises" and so forth, and from a review of relevant yearbooks. Second, each possible crisis was investigated in a daily news source to determine if the definitional criteria were met. If they were met, then the crisis would be noted along with the countries involved and the date boundaries within which the crisis occurred. In addition, short descriptions of the crises were produced.

Subsequently, the cases were organized into crisis country-pairs. A given crisis may involve several pairs of opposing countries. For example, Mideast crises have involved Egypt and Israel on opposing sides and other opposing pairs as well; for example, Syria and Israel. The advantage of organizing the cases in this fashion is that information on the particular dyadic relationships can be brought to bear in research on crises. For example, the dyadic approach allows us to identify the particular power comparison of various country pairs in crises, and this

provides a basis for researching the impact of different power comparisons on crisis behavior, management or outcomes. The contextual information that a given crisis country-pair is extracted from a multi-nation crisis is not lost, however, for a variable in the crisis dimensions identifies country-pairs according to which multi-nation crisis situation they are a part of, if any. A total of 93 crisis country-pairs are included in the inventory.

#### SELECTED CRISIS VARIABLES

Two criteria were applied to the selection of variables as potential dimensions of the crisis typology. Variables were required to be of potential policy interest and/or of potential theoretical import, as discussed above. A large number of variables derived from relevent literature and from consultations with representatives of the funding agency were initially considered, and subsequently 23 were selected (including countries involved and dates).

Not all of the variables selected will be used as dimensions of the final crisis typology. Data on each have been compiled for the purpose of analyzing the unique contribution that each can make to the typology. Analyses to be conducted during the next quarter will determine whether some variables should be eliminated by reason of their redundancy or inability to discriminate among the cases. In addition, responses from the funding agency regarding the policy utility of the selected variables will be taken in to account in determining the set of variables to be utilized for the typology.

#### CRISIS DATA FILE

The final section of this report presents, in matrix form, the data compiled for each country-pair on the selected variables.

#### II. ASPECTS OF WORK STATEMENT COVERED IN THIS REPORT

The Contract Work Statement contains the following six tasks:

- 1. Select alternative definitions of crisis and determine dimensions of crisis situations that are related to the selection of effective crisis prediction and management techniques. Relevant literature shall be reviewed for this purpose.
  - 2. A taxonomy of crises will be developed.
- 3. Survey primary and secondary sources for the purpose of compiling an inventory of international crises that occurred during the period 1946-1973 and that provides samples for each category of the taxonomy developed.
- 4. Draw upon extant data collections for the purpose of creating a crisis data file containing selected international crises for the period 1946-1973 as cases and the selected crisis dimensions as variables. Variables to be included will be selected in consultation with the COTR.
- 5. Analyze and describe the structure and trends in the crisis data file. Emphasis will be placed upon the analyses which delineate implications for crisis anticipation and crisis management.
- 6. Prepare a final report documentating all phases and results of the research, including a full description of the crisis data file.
- Taks 1, 3 and 4 have been completed and are reported on in the following sections. Also, the crisis data file called for in Task 6 is presented in a subsequent section.

In the remaining quarter of work on this project, Tasks 2 and 5 will be completed, and a final report will be prepared.

#### III. DEFINITION OF INTERNATIONAL CRISIS

#### GENERAL CONSIDERATIONS

Individuals whose professional concern is national security will attest that national security crises consist of occurrences anywhere which pose a potential and fairly immediate threat to security. Such occurrences can be of domestic, foreign or international origin. Domestic occurrences could include, for example, civil disturbances or major power failures that leave the nation insufficiently able to respond to foreign intrusions. Foreign domestic occurrences would include developing situations within other nations that threaten U.S interests abroad. An international crisis is distinguished from domestic and foreign crises primarily by the fact that it involves threatening occurrences between nation-states. For example, the Cuban Missile Crisis was an international crisis in that the escalation of hostility between the two superpowers threatened both.

Figure 1 illustrates the threefold classification of national security crises. The subject of the present study is <u>international</u> crises.



FIGURE 1: National Security Crises

Criteria against which different types of definitions of international crisis could be evaluated and which the selected definition would have to meet were established.

# DEFINING INTERNATIONAL CRISIS: CRITERIA OF EMPIRICAL IMPORT, SYSTEMATIC IMPORT, AND EXPLICATION

Carl Hempel (1952) proposes that good scientific concepts should possess two qualities: empirical import and systematic import. A concept has empirical import when observable indicators of the concept are specified; it has systematic, or theoretical import when it functions in some larger theoretical network of concepts.

Empirical import, in and of itself, is insufficient to ensure that a concept is useful in scientific analysis, for concepts having empirical import can be defined endlessly and in variant ways. Consider, for example, the concept "hage" defined as the product of height and age. By definition, "hage" has empirical import since it can be measured. However, its utility in scientific inquiry is dubious, since "even though it would have relatively high precision and uniformity in usage" the concept lacks theoretical import, for "we have no general laws connecting the hage of a person with other characteristics" (Hempel, 1952:46).

Concepts having systematic import "permit the establishment of explanatory and predictive principles in the form of general laws or theories. Loosely speaking, the systematic import of a set of theoretical terms is determined by the scope, the degree of factual confirmation, and the formal simplicity of the general principles in which they function" (Hempel, 1952:46).

In selecting a definition of international crisis, these criteria are applied to extant literature on the subject. The aim is to select a definition that exhibits empirical and systematic import. However, an additional constraint is imposed:

that is, that the definition be an explication of the general usage of the term "crisis". Explication "is concerned with expressions whose meaning in conversational language or even in scientific discourse is more or less vague", and aims at enhancing "the clarity and precision of their meanings as well as their ability to function in hypotheses and theories with explanatory and predictive force" (Hempel, 1952:11-12). The explication of a concept "must permit us to formulate...at least a large part of what is customarily expressed" by the term under consideration (Hempel, 1952:11).

Thus, in the present study it is required that the selected definition of crisis not only have empirical and systematic import, but also that it encompass at least a large part of what ordinarily are considered to be international crises.

We find that two types of definition meet the criteria in approximately the same degree.

# SYSTEMIC AND DECISION-MAKING DEFINITIONS OF INTERNATIONAL CRISIS

The literature on international crisis identifies two types of definitions which may be said to have a degree of theoretical and empirical import and which also cover a large number of situations regarded in ordinary discourse as crises. The two generally are referred to as systemic and decision-making definitions (McClelland, 1972; Hermann, 1969b; Hermann, 1969a).

As Charles McClelland noted at the 1967 Princeton symposium on international crisis, the two different definitions stem from fundamentally different conceptions of the subject matter of international affairs (Hermann, 1972a:7). James Rosenau identifies the two different conceptions in this way:

We take as a point of departure the most recent assessments of the concept of crisis. See Hermann (1969a) and Robinson (1972) for recent appraisals that form the basis for this section.

One group of theorists and researchers are interested in discerning regularities in the behavior of actors, in the common goals that are sought, in the means and processess through which the goal-seeking behavior is sustained, and in the societal sources of the goals and means selected. In other words, the members of this group are concerned with the study of foreign policy, and they tend to regard the condition of the international system at any moment in time as stemming from the foreign policy actions of nation-states. A second group of theorists and researchers are mainly concerned with the patterns that recur in the interactions of states, in the balances and imbalances that develop under varying circumstances, in the formation of coalitions and other factors that precipitate changes in the international system, and in the development of supranational institutions that might regulate one or another aspect of the international system. Stated differently, adherents of this approach are concerned with the study of international politics..." (1969:xviii).

Foreign policy theory and research tends to focus on <u>intra-</u>nation phenomena and their linkages to international behavior, while international system theory and research is concerned mainly with <u>inter-nation</u> phenomena (McClelland, 1972:86). It is not surprising that the two perspectives on the subject matter have given rise to different conceptions of what constitutes an international crisis.

McClelland defines crisis from a systemic perspective, emphasizing inter-unit phenomena: "a crisis is, in some way, a 'change of state' in the flow of international political ac-

tions" (1968:160). Oran Young also emphasizes inter-unit phenomena and their potential effects on subsequent activity: "an international crisis...is a set of rapidly unfolding events which raises the impact of destabilizing forces in the general international system or any of its subsystems substantially above 'normal'...and increases the liklihood of violence occuring in the system" (1967:10).

Charles Hermann, on the other hand, focuses a definition of crisis on intra-nation phenomena, specifically the perceptions of foreign policy decision-makers: "a crisis is a situation that (1) threatens high priority goals of the decision-making unit, (2) restricts the amount of time available for responses before the decision is transformed, and (3) surprises the members of the decision-making unit by its occurrence" (1969b: 414). Hermann's "proposed definition clearly refers to the decision-makers' perceptions of crisis situations" (1969b: 414).

Both systemic and decision-making definitions meet the criteria stated in the previous section for consideration in this study. With respect to systematic import, crises as defined in both modes are theoretically related to other empirical phenomena. McClelland (1968) suggests that systems under stress will load or strain their subsystems. System change is expected to produce changes of state--or crises--in international subsystems. Hermann (1969a) hypothesizes that a crisis, defined from the decision-making perspective, tends to result in a particular type of decision-making process.

<sup>&</sup>lt;sup>2</sup>See, for crisis definitions from a systemic point of view, Tanter, 1972; Miller, 1963; Triska, 1964; Young, 1967; McClelland, 1968; McClelland, 1972; North, 1963. For definitions from a decision-making point of view, see Turner, 1969; Hermann, 1969a; Paige, 1969; Hermann, 1969b; Holsti, 1972.

Neither definition then, is mindlessly "operational". Furthermore, both definitions have empirical import. In principle, changes of state in event flow are measureable, as are the perceptions of decision-makers, and both types of measures have been taken in prior research (e.g., Hermann, 1972b; Holsti, 1972; McClelland, 1968).

Finally, both definitions encompass situations ordinarily referred to as crises. Holsti (1972), following Hermann's definition, identifies the pre-World War I and Cuban missile situations as crises. Hermann in addition finds that his definition covers the Korean situation in 1950 from the perspective of U.S. decision-makers (1969b; see also Paige, 1972). McClelland's research using the systemic definition leads him to identify the 1948 and 1961 Berlin situations as crises in addition to several episodes in the Taiwan Straits that ordinarily are considered crises.

### THE APPROACH OF THE PRESENT STUDY

If two prominent but different types of definitions of crisis meet or approximate the criteria of a "good" definition, how can a choice between them be made? This problem causes difficulties in the current study where our task is to compile an inventory of crisis cases for future general research purposes, i.e., for research not necessarily in only one or only the other of the two perspectives of international systems and foreign policy. If our theoretical focus were constrained to one perspective, then the choice clearly would be the type of definition having greater theoretical import in that perspective. However, the present study seeks to remain as general as possible in this respect. Fortunately, there are two good reasons to suspect most situations identified as systemic

crises probably also are decision-making crises, so that an inventory of systemic crises would include a large number of crises from the decision-making perspective as well.

First, the prior research of the Stanford Studies in International Conflict and Integration suggests that perceptual phenomena are linked to systemic phenomena. The actions of one nation influence the perceptions of another's decision-makers, and those perceptions are linked to subsequent behavior (Zinnes, 1972). This raises the likelihood of considerable overlap in the situations identified as crises from the two perspectives. According to the Stanford findings, changes in events toward the direction of violent confrontation would tend to be reflected in the perceptions of involved decision-makers.

Second, we know that a systemic definition encompasses situations that are crises in decision-making terms. For example, as noted previously, the decision-making definition identifies the Korean, Cuban, and pre-World War I situations as crises. Each of these situations clearly would be identified by a systemic definition as well, for each involved a change of state in the flow of international actions that appeared to increase the likelihood of violence in the system. This study, then, uses a systemic definition to identify international crises in the expectation that a large proportion of the episodes identified as systemic crises also are decision-making crises for the involved foreign policy actors.

In the process of reviewing the histories of identified systemic crises we attempted to discover to what extent Hermann's three criteria were met. We found ourselves unable to make confident estimates on the basis of our sources, however.

#### A SYSTEMIC DEFINITION OF INTERNATIONAL CRISIS

The following quotations reveal major elements of systemic definitions of international crisis:

- McClelland (1968): "A crisis is, in some way, a 'change of state' in the flow of international political actions."
- McClelland (1972): "A crisis refers to both a real prelude to war and an averted approach toward war."
- Young (1967): "An international crisis...is a set of rapidly unfolding events which raises the impact of destabilizing forces in the general international system or any of its subsystems substantially above 'normal'... and increases the likelihood of violence occurring in the system."
- Triska et al. (1964): A crisis is "an extraordinary, nonroutine, abnormal situation...result of negative input ...accelerating paces...quickening responses, disbalancing stabilities, and containing elements of danger of war."

The definitions above specify various systemic characteristics of crisis: changes of state in international political actions, approaches toward war, rapidly unfolding events, increases in the likelihood of war, abnormality. In this section we incorporate most of these characteristics into a definition having the general theoretical import of systemic approaches and having the additional attribute of being phrased in the terminology of interaction systems. The phrasing allows the various elements in the definition to be formulated in a common theoretical language of international systems. However, a non-technical version of the definition is presented at the end of this section.

In the above definitions, crisis is regarded in part as a point in time when international behavior changes to an unusual degree in the direction of violence. For McClelland this behavior is an approach toward but not necessarily into war; for Young, it increases the likelihood of violence; for Triska, it contains elements of the danger of war.

The definitions describes situations in which new occurrences in a system place in doubt whether the system will continue to function without violence or break down into violence. In this respect the systemic conception of crisis is similar to the one in medical science, which defines crisis at a point in time when the outcome of a struggle between some foreign bodies and antibodies "is in grave doubt" (North, et al., 1963:4).

It can be seen in system terms why an unusual movement of a system (e.g., between nations in a dyad) toward the violent end of a spectrum of activity causes serious doubt about the outcome of such behavior. Adopting, appropriately, the systemic perspective of two actors in interaction, we can illustrate (following Pruitt, 1969) why an unusual movement raises doubts about outcomes. Figure 2 contains a possible interaction system involving two nations.

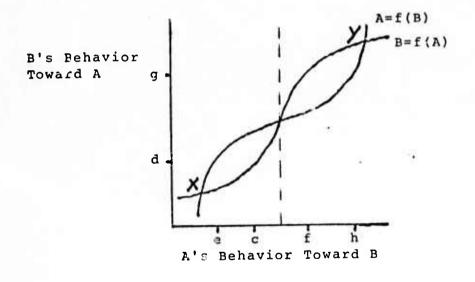


FIGURE 2: Two Nation Interaction System

The figure shows reaction functions for each of two nations'
(A and B) reactions to behavior of the other nation. For example, the line labeled A=f(B) represents A's reactions to B's
behavior. Behavior is on a dimension ranging from less con-

flictive action (at the origin) to violence (at the end). The points at which the two reaction functions intersect are equilibria.

Assume that two nations' behavior are at point X (the lower equilibrium). The point at which the nation, are located in this space is called the "joint location." If, due to a "momentary force" acting on one nation, the joint location moves to the right of the lower equilibrium but not beyond the vertical dashed line, the dynamics of the interaction system will carry both actors back to the lower equilibrium. For example, if A's behavior moves to the point designated "c", B's reaction will be at point "d", A's reaction will then be located at point "e", and so forth until both nations come to rest again at the lower equilibrium. The lower equilibrium thus is stable to the left of the vertical boundary.

If, however, due to the momentary force, one of the nation's behavior moves to the <u>right</u> of the boundary, then the dynanics of the system will carry the nations to the upper equilibrium "Y". For example, if A's behavior moves to the point "f", B's reaction will be at point "g", and A's next behavior will be at point "h". In summary, then, as long as the joint location is to the left of the vertical boundary, the joint location oscillates around the lower equilibrium. But escalative reactions occur to the right of the boundary and move the system toward violence.

One may at this point ask: What if a highly unusual change in joint location occurs? The dynamics of the system in the range of the new joint location will be unknown, or not well known, simply because there is little experience in that range. This

<sup>&</sup>lt;sup>1</sup>This example is adopted from Pruitt (1969) and is simplified for presentation here.

is likely to cause doubt about outcomes of the situation. It is possible that the original equilibrium is stable for all ranges of b havior; possibly in the range of the unusual behavior, the reaction structure will carry the system toward and into violence--that is, a boundary may have been crossed.

It is not surprising, then, that systemic definitions of crisis tend to refer both to unusual, abnormal, behavior "approaching" war, and to the danger of war or violence simultaneously. In interaction system terms we can restate these two elements of crisis as follows in a partial definition: An international crisis occurs when the joint location of nations in an interaction system moves toward the violent end of a spectrum of behavior and outside of the range within which the joint location usually is found. This definition is consistent with the conception of crisis as a change of state in the flow of international political actions, as an abnormal situation, and as a situation that is an approach toward war causing doubt about whether the outcome will be peaceful or violent. tion does not require of crises that they "increase the likelihood of violence" (Young, 1967) in relative frequency terms. The question of whether they do or do not is one that can remain for appropriate empirical research to examine. The literature contains opposing ideas in this regard.

The definition as it now stands is incomplete in several respects. First, it could identify a crisis situation as one in which a single event moves the joint location toward violence and beyond the usual range of behavior. Most analysts of crisis behavior associate crisis with a set of events. The requirement of such multiple unusual actions is understandable, since situations may not be regarded as crises when a system moves immediately back to its normal range of operation following the

See Wright (1972), McClelland (1961) and Waltz (1964) for the opposing opinions.

occurrence of just one or a few unusual events. In other words, sustained activity outside the normal range is required for there to be a crisis. The crisis definition, then, is expanded (though still unfinished) to read: An international crisis occurs when the joint location of nations in an interaction system moves toward the violent end of a spectrum of behavior, outside of the range within which the joint location usually is found, and does not immediately return to the previous normal range.

Another addition to the definition is requried, for crisis as it is defined thus far does not fully meet the "explication" criterion imposed earlier. According to the current definition, when two nations whose relations usually are quite friendly suddenly engage in mild, but unusual, conflictive behavior that is far from violent or even threatening behavior, the situation would be a crisis. Clearly, such a situation would not be a crisis in the ordinary usage of the term, for ordinary usage would seem to require that crises involve behavior in proximity to violence, such as threats of violence. For example, the Cuban, Berlin and Korean situations involved behavior in the vicinity of violence. We therefore incorporate into the definition a constraint which produces a better explication of the concept: the constraint that the change in joint location must propel that location into the "vicinity of violence".

The definition now still partial reads: An international crisis occurs when the joint location of nations in an interaction system moves toward the violent end of a spectrum of behavior and into the vicinity of violence, moving outside of the range within which the joint location usually is found, and not immediately returning to its previous normal range.

In order to further enhance the explication of the concept, we include the variable of time in our definition. "Rapidly unfolding events" (Young, 1967) and "accelerating paces...and quickening responses" (Triska et al., 1964) all require the existence of restricted reaction time. A series of interactions, increasing in frequency, moving away from the normal arena of behavior towards the vicinity of violence may occur over a drawn out, extended period of time, where the intensity and increasing conflictive behavior lose the characteristic of a crisis and become more routinized. Adding this aspect to the definition, it reads in its completed form: An international crisis occurs when the joint location of nations in an interaction system moves toward the violent end of a spectrum of behavior and into the vicinity of violence, moving outside of the range within which the joint location usually is found, being sustained outside of that range under conditions of rapid actions and response.

#### A NON-TECHNICAL DEFINITION

A non-technical version of the definition may be specified as follows: An international crisis occurs when behavior between nations emerges that is unusually threatening of violence and that is carried on in a sustained fashion under conditions of rapid action and response.

#### OPERATIONALIZING THE CRISIS DEFINITION

#### INTRODUCTION

We now have a conceptual definition containing several conditions which must exist in order for a situation to constitute an international crisis. The four conditions that must exist are:

 Behavior between the two nations is in the vicinity of violence;

- Behavior between the two nations is outside of its normal range;
- Behavior in the vicinity of violence is sustained;
- Responses between the two nations occur rapidly.

We now present operational interpretations for each of the four conditions, which are set out in bold type below.

BEHAVIOR BETWEEN THE TWO NATIONS IS IN THE VICINITY OF VIOLENCE.

Different types of conflictful acts usually contain different amounts, or intensities, of conflict. Thus a common conception is that conflictful acts can be arrayed on a dimension which ranges from low to high intensities of conflict. Several scales actually have been constructed, and in each scale violent actions are found at the highest ranges of intensity. Other action types are more or less proximate to the violent end of the dimension. These scales are helpful in determining which types of acts generally are considered to be in the vicinity of violence in terms of their intensities.

A review of four such scales reveals that verbal and physical acts indicating serious consideration of the use of military options rank closely to their actual use. The use of such action types as indicators that an international episode is in the vicinity of violence would thus appear to be justified. The occurrence of such acts as one criterion for determining the existence of a crisis also is reasonable in view of the previously noted fact that an element of crisis for most writers is the danger of war. That danger would appear to be heightened when such acts occur.

Verbal and physical acts indicating consideration of military options include ultimata, threats and warnings of a military

nature, and military mobilization. We thus would identify a situation as being in the vicinity of violence if any one of the following conditions hold:

- one nation warns another that the nation will engage in military action against the other.
- $\bullet$  a nation threatens the other nation with military action.<sup>2</sup>
- a nation mobilizes military forces against the other nation.

BEHAVIOR BETWEEN THE TWO NATIONS IS OUTSIDE OF ITS NORMAL RANGE.

Crises, as previously noted, represent changes of state and abnormalities in relations among nations. The observation of certain types of acts in those relations—military warnings, threats, mobilizations—is alone not adequate to establish that a crisis exists. Those acts must also constitute an unusual change from a more normal state of relations.

Under what circumstances are military threats, warnings and mobilizations outside the normal range of behavior between two nations? An approximate answer is: when such acts do not occur often between the nations relative to the occurrence of other acts. An operational interpretation of the concept then would denote an act as unusual if in the past its relative frequency (in relation to all other act types) is less than some small percentage, say five percent or one percent.

In the Corkeley scale (Hart, 1974), military warning, ultimata and mobilizations are close to declaration of war; in Zinnes' (1968) scale, ultimata and mobilizations are similarly positioned closely to military attacks; military mobilization and threat of attack are near Corson's (1971) category of attack; threats are close to force acts in Calhoun's scale (In McClelland, et al., 1971).

The difference between a warning and a threat is that a threat is a conditional (if...then) statement while a warning is not. Ultimata are regarded as threats and thus are included implicitly in the threat category.

The problem with such an interpretation is that it is not very useful in practical terms. We do not have access to world-wide international event collections for the period under study which might be used to compute such relative frequencies. Since we cannot measure the unusualness of an event directly, we shall need to find an indirect indicator. Following Blalock (1968) we ask what noticeable empirical occurrence would obtain if an unusual threatening event were to occur. An event of this nature would not be handled in the routine channels of the foreign policy bureaucracy but instead would be responded to at higher levels. As an approximation, then, we can assume that an unusual threatening event causes response to be issued by individuals in the higher levels of the government foreign policy structure. Since crises are regarded as very exceptional circumstances, we can specify that responses to the associated threats will come from or be directed by or involve the head of state or head of government, persons appointed by these officials for the purpose of dealing specifically with the situation.

#### BEHAVIOR IN THE VICINITY OF VIOLENCE IS SUSTAINED.

Our purpose in requiring behavior in the vicinity of violence to be sustained is to exclude episodes where aberrant behavior occurs but fails to generate much activity and is not pursued by the actors involved. Operationally, we require that any episode initiated by such action continue for at least two days. If this requirement is not met, then the situation is regarded as brief aberration not qualifying as an international crisis.

#### RESPONSES BETWEEN THE TWO NATIONS OCCUR RAPIDLY.

How rapidly should behavorial responses occur for a situation to be classified as a crisis? While there is not explicit guidance on this point in relevant literature, it is clear that the urgency associated with the concept of crisis would require at least some reaction times to be less than one week in length. Thus we require that some reactions occurring over less than a one week period can be identified in the historical record in order for a situation to be classified as a crisis.

#### SUMMARY OF OPERATIONALIZATION

An international crisis exists between two nations when

- At least one of the following conditions holds:
  - a nation warns the other nation that some aspect of a current situation will require it to engage in military action against the other;
  - a nation threatens the other nation with military action conditional on the other's action or nonaction;
  - 3. a nation mobilizes forces against the other nation;
- and actions taken by each nation are initiated by, directed by or involve the head of state or government or his agents designated specifically for the purpose of dealing with the episode;
- and once in the vicinity of violence, the episode continues for at least two days;
- and some responses occur over a period of less than one week.

Any situation which meets these operational criteria is an international crisis, whose beginning date is the first day of behavior in the vicinity of violence.

#### CRISIS TERMINATION

Ending dates of crises are determined according to the following rules. A crisis terminates when:

 No actions in the vicinity of violence have occurred for a two week period, signalling a return to more routine relations; or

- Continuing events in the vicinity of violence such as mobilizations are discontinued;
- Full scale war breaks out among the nations, propelling the nations into a qualitatively different type of situation; or
- An effective agreement is made for mediation or resolution of the dispute.

#### INTRODUCTION

IV.

This section presents the cases of international crisis identified, the crisis country-pairs selected for data collection, and a brief description of each crisis. Two decisions about the qualification of cases for inclusion were made. First, a decision was made to exclude crises whose issues were primarily colonial in nature. Especially during the 1950's and early 1960's a number of conflicts arose between colonial territories and the colonizing state, and these conflicts sometimes involved several nations. This type of conflict is largely irrelevant for the future, however, since relatively few colonies remain and few if any colonial conflicts are expected to occur in the 1970's and beyond. Thus a decision was made to include only crises between independent nation-states not involving colonial conflicts. The dates of independence for countries were identified from a publication by J. D. Singer and M. Small (1972: Table 2.2). Second, a decision was made to exclude certain crisis country-pairs from the selected list. Several crises have involved NATO and Warsaw Pact countries on opposing sides or in conflict with other countries. In such cases, only the alliance leaders (US, USSR) are selected into crisis countrypairs while the subsidiary alliance members are ignored. The reason for this decision is that the subsidiary countries tend to play a relatively less important role in such crises. A related decision was made with respect to the several Taiwan Straits crises and crises involving Cuba. In these cases the relationship of paramount importance is that between the US and either China or the USSR when these countries are involved. Thus, the crisis countrypairs selected from these crises involve only those countries.

Nearly 200 possible international crises were identified from several extant lists of "conflicts", "critical situations", "crises", etc., and from a survey of world affairs yearbooks. Then it was determined whether each case satisfied the definitional and other criteria described previously in this report. The determination was made after reviewing the development of the case in one or more news sources (the New York Times, The Times of London, and Hispanic American Report).

The result of the procedures and rules is that 72 international crises were identified, and 93 crisis country-pairs were selected for inclusion in the crisis data file. These crises and the associated country-pairs are listed in the following, along with the dates for and a brief description of each crisis. In the descriptions if two or more crises between the same nations occurred during the same year, the country-pair is labeled "A" for the first crisis, "B" for the second crisis in that year, etc.

#### CRISIS DESCRIPTIONS

Descriptions of the 72 crises and 93 crisis country-pairs begin on the following page.

The initial list of 190 conflicts was compiled from the following sources: Bloomfield and Beattie (1971); Bloomfield and Leiss (1967); Ivanoff (1966); Bendix (n.d.); Deitchman (1964); IBM (n.d.); Krass (1966); Raytheon (1963); Phillips and Hainline (1972); SIPRI (1970); Holsti (1966); New York Times; The Times of London; Hispanic American Report; Brittanica Yearbook. Some of these are lists extracted from reports which are not in our possession. Thus, citations in the References are incomplete for some of the above.

Crisis: Trieste

Dates: 6/4/46-7/15/46

Country Pair: Italy-Yugoslavia

The dispute between Italy and Yugoslavia concerned the Trieste territory located between the two countries. In June, 1946, the border dispute intensified. The Italian government declared a state of emergency, and Yugoslavia's President Tito told his forces to prepare for battle. For more than a month, charges and warnings of a serious nature continued between the two countries. The crisis subsided in July, 1946.

Crisis: Kashmir

Dates: 10/26/47-11/1/47

Country Pair: India-Pakistan

Shortly following the independence of India from England, a dispute arose between India and Pakistan over the territory of Kashmir, located between India and West Pakistan. Kashmir's deputy Prime Minister accused Pakistan of invading Kashmir. India at first declined to interfere, but a few days later Kashmir announced it would prefer to accede to India. The government of Pakistan did not want to accept the accession of Kashmir, and there were military mobilizations on both sides. Fighting occurred between India and Pakistan, but was stopped after the United Nations arranged a cease-fire.

Crisis: China (People's Republic)-Mongolia

Dates: 6/7/47-6/20/47 Country Pair: China-Mongolia

In an ultimatum delivered from Mongolia to the Chinese government, Mongolia called for the release of Mongolians imprisoned in China. The ultimatum warned that unless the Mongolians were released, Mongolia would retaliate. When China failed to release the prisoners, a series of Mongolian raids into Chinese territory began, leading to serious warnings from China. The raids were discontinued on June 11, and the intensity of the interaction subsided.

Crisis: Berlin Blockade

Dates: 6/24/48-5/12/49

Country Pair: USA-USSR

In June, 1948, in response to the German currency reform instituted by the Western powers, the Soviet Union stopped all ground transportation between the West and Berlin. The United States responded by launching an airlift of supplies to Berlin and imposing an economic trade blockade between East and West. Allied transport planes were buzzed by Soviet fighters intermittently until early 1949. The climax of the crisis occurred in December, 1948, at which time Berlin was divided into East and West municipalities. An agreement to end the blockade was reached in May, 1949.

Crisis: Costa Rica-Nicaragua

Dates: 12/10/48-1/30/49

Country Pair: Costa Rica-Nicaragua

In the midst of domestic political turmoil in Costa Rica, Rafael Calderon-previously a Presidential candidate in Costa Rica--led a few hundred partisans into the country from Nicaragua in an effort to spark a pro-Calderon revolution. Costa Rica's government charged that Nicaragua was aiding Calderon, and both nations raised the possibility of warfare between them. During January, relations between the countries were smoothed through the offices of the O.A.S.

Crisis:

Korea

Dates:

5/5/50-6/28/50

Country Pair: USA-North Korea

On May 5, 1950, a force of about 500 North Korean soldiers crossed the northeast border of South Korea, resulting in a battle between North and South Korean troops. South Korea appealed to the United States for help in case of further North Korean threats. When war broke out between North and South Korea on June 25, the United States warned that North Korean aggression threatened peace. North Korea continued to send troops to South Korea, ignoring the United States warning. In response to North Korea's actions, United States President Truman mobilized air and sea units and decided to give support to South Korean forces. The United States ordered the Sixth Fleet to Formosa and United States forces to the Phillipines. On June 29, United States bombers attacked North Korea, beginning the involvement of the United States in the Korean war.

Crisis:

Ecuador-Peru

Dates:

8/12/51-9/30/51

Country Pair:

Ecuador-Peru

Early in August, 1951, sporadic military incidents broke out between Ecuador and Peru in a disputed border area between the two nations. The military forces of both countries were mobilized. Charges and countercharges occurred between the two sides, and public opinion became hostile in each country. The fighting and the hostility subsided at the end of September.

Crisis: Suez

Dates: 10/8/51-12/15/51

Country Pair: United Kingdom - Egypt

In the midst of a dispute regarding England's right to free passage through the Suez Canal, the Egyptian Prime Minister proposed that Egypt abrogate the Anglo-Egyptian treaty of 1936, under which British troops were stationed in the Suez Canal zone. In response, England alerted its troops in the canal area and shipped reinforcements to the zone. Charges and counter-charges occurred frequently as British troops seized various positions for defense of the canal. The crisis abated in mid-December.

Crisis: Yugoslavia-Soviet Bloc

Dates: 1/21/51-4/30/51
Country Pair: Yugoslavia-USSR

In January, 1951, Yugoslavian leaders reported that Cominform troops were massing around Yugoslavia. Yugoslavian President Tito warned that Yugoslavia would fight any aggression. The Yugoslavian government fortified its borders. In a note to the Yugoslavian government, the Soviet Union said that it would continue to attack the Yugoslavian regime. More threats, and increased border fortifications continued until the crisis subsided later that year.

Crisis:

Kashmir

Dates:

1/21/54-5/1/54

Country Pair:

India-Pakistan

In January, 1954, Pakistan threatened to move troops into the territory of Kashmir unless the ongoing dispute with India over the border territory was settled. Shortly thereafter, the constitutent assembly of the Indian-controlled part of Kashmir decided in favor of accession to India. India then ordered that Kashmir was to be brought under the Indian constitution. This act was followed by military warnings from Pakistan against ladia, until the dispute subsided in May.

Crisis:

Tachens Islands

Dates:

8/14/54-9/15/54

Country Pair:

USA-China (People's Republic)

In August, 1954, Chinese Premier Chou En-lai, charging that Chinese nationalist planes invaded Chinese territory from Formosa, urged liberation of Formosa. In response, United States President Fisenhower pledged that the U.S. Seventh Fleet would block any invasion of the island. In August, as Chinese troops raid Quemoy Island, the United States did not interfere, and the crisis subsided.

Crisis:

Goa

Dates:

7/24,55-9/20/55

Country Pair:

India-Portugal

In July, 1955, several successful attempts by Indian nonviolent resisters to enter the disputed Portuguese territory of Goa resulted in the collapse of relations between India and Portugal. Several lives were lost as Portuguese troops fired on the resisters. Indian troops mobilized north of Goa, and the Indian government asked Portugal to close its consulates in India, as well as its legation in New Delhi.

Crisis: Tachens Islands

Dates: 1/21/55-3/18/55

c cry Pair: USA-China (People's Republic)

In the heaviest strike ever, China bombarded the Tachens Islands in a campaign to get possession of the Straits. The United States President Eisenhower warned China that the United States would intervene militarily if the Chinese continued the attack. The United States Seventh Fleet, and United States jets were readied in Formosa. At this point, Taiwan abandoned the Tachens Islands, and the crisis abated.

Crisis: Costa Rica-Nicaragua

Dates: 1/16/55-1/25/55

Country Pair: Costa Rica-Nicaragua

Early in the year a group of Costa Rican rebels headed by Rafael Calderon moved into Costa Rica from Nicaraguan territory. The rebels had the assistance of the government of Nicaragua. Costa Rica charged Nicaragua with aiding an attempt to overthrow Costa Rica's government. Claiming it had been provoked by Costa Rica, Nicaragua sent troops across Costa Rica's borders. Nicaraguan troops withdrew after the O.A.S. established a deadline by which the troops were required to withdraw.

Crisis: Suez

Dates: 6/26/56-10/29/56

Country Pairs: United Kingdom-Egypt

France-Egypt Israel-Egypt

In response to the United States' withdrawal of aid in the construction of the Aswan dam, Egypt nationalized the Suez Canal Company. This action brought vigorous reactions from Great Britain and France, frequent users of the canal. In response, both Great Britain and France took financial measures against Egypt and the two governments began taking military and naval measures also. The Israeli invasion of Egypt, closely followed by the British and French invasions, mark the beginning of the Suez War on October 29, 1956.

Crisis: Hungarian Revolution

Dates: 9/14/56-11/7/56

Country Pair: Hungary-USSR

During 1956, Hungary attempted to establish a more liberal government than had existed in the previous communist regimes in the country. The attempt at liberalization drew increasingly serious threats from the Soviet Union and other Warsaw Pact countries. Hungarian popular opposition to Soviet domination peaked in October, when the country was nearly completely liberated. However, Soviet troops eventually quelled the rebellion, and the crisis subsided.

Crisis: Burma-China Border Clashes

Dates: 7/31/56-10/3/56

Country Pair: Burma-China (People's Republic)

In July and August, 1956, disputed territory along the China-Burma border was the site of Chinese military activity. The Burmese government protested against the Chinese incursions and mobilized its troops against China. The issue subsequently was settled in negotiations between the two countries.

Crisis: France-Tunisia
Dates: 5/22/57-9/9/57

Country Pair: France-Tunisia

In May, 1957, the French-Algerian war spilled over into a French-Tunisian crisis. Tunisia was supportive of the Algerian cause, and Algerian rebels often took refuge in Tunisia, where they were pursued by French troops. Tunisia's government ordered that French troop movements within Tunisia would require Tunisia's permission. The troops of the two countries mobilized against each other, and several clashes occurred.

Crisis: Syria-Turkey

Dates: 9/16/57-10/15/57

Country Pairs: Syria-Turkey

USA-USSR

In September, 1957, Syria and the Soviet Union charged that Turkey was concentrating troops on the Syrian border and that there existed a United States'-Turkish plot to invade Syria. Both Syria and Turkey then mobilized their armed forces. The United States warned the Soviet Union that it would stand by Turkey under the NATO agreement if Turkey were attacked. The crisis died down in the midst of a U.N. General Assembly debate on the problem.

Crisis: Morocco-Spain

Dates: 11/22/57·12/13/57

Country Pair: Morocco-Spain

In late November, 1957, border mobilizations and sporadic fighting occurred on the Morocco-Spanish West Africa border. The tensions were caused by a disagreement between Morocco and Spain on the fate of Ifni, a Spanish enclave. The Morocco government favored the cessation of Spanish occupation of Ifni, where the people were in revolt against Spain. The fighting abated in December, 1957.

Crisis: Indonesia-Netherlands

Dates: 12/1/57-12/30/57

Country Pair: Indonesia-Netherlands

The dispute between Indonesia and the Netherlands regarding the status of West New Guinea took on new proportions in December, 1957. The Indonesian government ordered a strike against all Dutch enterprises in Indonesia. Dutch enterprises were seized by the workers as the Indonesian government declared it would secure the return of West New Guinea by its own strength. The crisis abated as the Dutch evacuated nationals from Indonesia and as Indonesia President Sukarno left on a vacation for reasons of health.

Crisis: Berlin Deadline

Dates: 11/27/53-5/11/59

Country Pair: USA-USSR

Towards the end of November, 1958, the Soviet Union delivered an ultimatum to the United States, France and Great Britain, announcing a deadline of six months for the Western powers to vacate Berlin and demanding that Berlin become a free city. In the note, the Soviet Union said that unless its demands were met, it would conclude its own peace agreement with East Germany. During the first few months of1959, there were repeated detentions along the Berlin autobahn and disputes over air corridor rights, accompanied by much diplomatic activity between the United States and the Soviet Union. The crisis ended with the convening of the Geneva Foreign Minister's conference in May, 1959.

Crisis: Egypt-Sudan

Dates: 2/17/58-3/2/58

Country Pair: Egypt-Sudan

In February, 1958, the Egyptian government laid claim to Sudanese territory north of the 22nd parallel and sent troops into Sudan. Both Egypt and Sudan accused each other of sending troops to the area, and expressed fear of armed clashes occurring. When attempts to negotiate failed, Sudan asked for a meeting of the United Nation Security Council, charging huge infiltration of Egyptians occurred in border areas. The United Nations postponed action when both sides promised to negotiate an end to the conflict.

Crisis: Tunisia-France
Dates: 2/8/58-2/20/58

Country Pair: Tunisia-France (A)

The continued presence of armed Algerian rebels in Tunisia led to a French aircraft raid on several Tunisian villages. In retaliation, Tunisian forces blockaded French military bases in Tunisia. The Tunisian government mobilized troops and demanded evacuation of all French forces in the country—including the abandonment by French forces of the Bizerte naval base before peace could be negotiated. Tunisia appealed for United Nations' help. In late February, both countries accepted offers by the United Kingdom and the United States to help in settling the dispute. The crisis died down, but the dispute was not resolved.

Crisis: Nicaragua-Honduras

Dates: 4/26/57-5/5/57

Country Pair: Nicaragua-Honduras

Following the establishment by Honduras of a new political department in a disputed border area between Honduras and Nicaragua, relations with Nicaragua became strained. As both countries sent troops to the disputed area, some armed clashes occurred, but the O.A.S. managed to obtain a cease-fire pact and a pledge from both countries to desist from further troop movements in the area.

Crisis: Lebanon

Dates: 5/14/58-7/3/58

Country Pairs: Lebanon-Egypt

USA-Egypt

In May, 1958, an armed rebellion erupted in Beirut, Lebanon, and was linked to Egypt. The Lebanese government charged Egypt with sponsoring the revolt, and appealed to the United Nations for assistance. When the Lebanese government asked the United States for aid, the United States sent the Sixth Fleet near to Lebanon and airlifted anti-riot equipment to the country. Additionally, the United States warned Egypt that it would use troops to help Lebanon preserve its independence. In response to a request from Lebanon, the United States sent the marines to help defend Lebanese independence. The crisis continued until a new government took power in Lebanon, and United States withdrew its troops in July, 1958.

Crisis: Quemoy-Matsu

Dates: 8/6/58-10/10/58

Country Pair: USA-China (People's Republic)

In August, 1958, the Chinese government again began shelling Formosa and the islands of Quemoy and Matsu off the Chinese coast. United States President Eisenhower sent help to Formosa and warned that any invasion and attempt to take over the islands would result in full United States intervention on behalf of Formosa. The shelling abated in October, 1958.

Crisis:

Tunisia-France

Dates:

5/25/58-6/20/58

Country Pair: Tunisia-France (B)

Towards the end of May, 1958, the Tunisian government ordered total mobilization of its armed forces as a result of clashes between French and Tunisian troops in Tunisia. Tunisia blockaded all French military bases in Tunisia, as France began to increase supplies sent to the bases. Charges and counter-charges continued, but the tension eased. By the end of June, France agreed to withdraw all forces except those at Bizerte, and a four-month time limit for withdrawal was set.

Crisis:

Haiti-Cuba

Dates:

8/15/59-8/19/59

Country Pair: Haiti-Cuba

In August, 1959, Haiti alerted its armed forces for an anticipated invasion from Cuba. Following this alert, a small group of Cubans and exiled Haitians invaded Haiti, with the intention of overthrowing the existing Haitian government. Haiti warned Cuba that the invasion would not be tolerated. The invaders were captured or killed shortly, and the dispute was referred to the O.A.S.

Crisis:

Dominican Republic-Cuba

Dates:

6/24/59-7/11/59

Country Pair: Dominican Republic-Cuba

In response to a Cuba-supported invasion of the Dominican Republic, led by several hundred Dominican Republic exiles, the Dominican Republic mobilized its troops against the invaders. Cuba responded by breaking diplomatic ties with the Dominican Republic and charging the government with disregarding and violating international treaties. The Dominican Republic declared its military forces were ready for war with Cuba, but the episode abated shortly thereafter.

Crisis: Panama-Cuba

Dates: 4/16/59-5/11/59

Country Pair: Panama-Cuba

In mid-April, 1959, the Panama government warned against a Cuban invasion of Panama and alerted its armed forces against such a threat. A Cuban invasion took place on the Caribbean coast of Panama by a band of invaders intent on overthrowing the Panama government. Cuba denied the invasion was by Cuban forces, but evidence shows that the invaders' point of departure was Cuba. The invaders were captured and subsequently returned to the Cuban government.

Crisis: China-Nepal

Dates: 6/30/60-8/1/60

Country Pair: China (People's Republic)-Nepal

Toward the end of June, 1960, Chinese troops were active in the area of the disputed Chinese-Nepal border. The Nepal government protested to China, and China acknowledged its troops were near the border area. Nepal mobilized its troops and moved them to the Nepal-China border. Nepal charged China with border violations and warned the Chinese government not to move troops. By August 1, China withdrew its troops from the disputed area.

Crisis: Kuwait-Iraq

Dates: 6/26/61-8/3/61

Country Pairs: Kuwait-Iraq

United Kingdom-Iraq

When the Iraqi government claimed Kuwait was an integral part of Iraq, Kuwait declared a national emergency. The United Kingdom warned Iraq not to provoke a serious problem. Kuwait formally requested military aid from the United Kingdom, and, in response, the United Kingdom sent warships and troops to the area to counter the Iraq threats of annexation. The crisis abated when the Arab League refused to admit the Iraqi claim to Kuwait.

Crisis: Bay of Pigs

Daces: 4/15/61-4/22/61

Country Pair: USA-USSR (A)

The Bay of Pigs crisis involved the attempt by United States trained refugee groups to establish a foothold in Cuba and overthrow the Castro regime. The Cuban government reported bombers attacked Cuban air bases, and mobilized its troops, accusing the United States of attacking Cuba. A national alert was declared by the Cuban government. The Soviet Union leader Khruschev warned United States President Kennedy that the Soviet Union would help Cuba defeat any invadors. President Kennedy in turn warned that the United States would not allow outside military intervention in the Western hemisphere. The invasion is crushed by April 20th, and the crisis abated.

Crisis: Goa

Dates: 11/27/61-12/21/61

Country Pair: India-Portugal

In November, 1961 Portugal charged India with planning to attack Goa.

India reported a Portuguese build-up of troops in Goa, and tension mounted over the troop build-up. In December, India sealed off its borders and charged Portugal with aggression. Portugal charged India with ordering a military build-up and accused India of threatening peace. By December 18, India troops invaded Goa, rejecting all appeals from the United Nations and world community. The United Nations ordered a cease-fire as India reported the capture of Goa was completed. Portugal conceded that resistance to the invasion has ended, and the crisis abated.

Crisis: Berlin Wall

Dates: 8/13/61-9/15/61

Country Pair: USA-USSR (B)

In August, 1961, East German troops closed the border between East and West Berlin by erecting a wall. The Soviet Union had divisions guarding the border. The United Kingom, France and the United States protested to the Soviet Union against the closing of the Berlin border. The Soviet Union in turn charged the three powers with provocative actions and the abuse of rights of access to Berlin. The Soviet government warned all Westerners to stay away from the border. The West mobilized troops along the East Berlin border to counter the attempt to control "no-man's land" on the West Berlin side of the border. The Soviet Union charges that the West violated the 1945 accord. United States President Kennedy rejected the Soviet charge and warned the USSR that interference with allied air access would be considered aggression. By September 15, talks began, and the crisis abated.

Crisis: Cuban Missile Crisis

Dates: 10/22/62-11/3/62

Country Pair: USA-USSR

In October, 1962, in response to a Soviet build-up of offensive nuclear missiles on a base in Cuba, the United States imposed a quarantine on all ships carrying offensive weapons and demanded that the missile base be closed down. The Soviet Union charged the United States with piracy and violation of international law. In the days following, several Soviet ships were boarded by the United States and allowed to pass through the blockade when found to contain cargo other than offensive missiles. After a two-week long exchange of letters between United States President Kennedy and Soviet leader Khruschev, the crisis abated when the Soviet Union agreed to dismantle the Cuban bases in exchange for future talks on relations in the Western Hemisphere.

Crisis: India-China (People's Republic)

Dates: 10/20/62-11/20/62

Country Pair: India-China

During October, 1962, Chinese troops mobilized and overran many Indian positions on the disputed Himalayan frontier. The Indian government declared a state of emergency as Chinese troops made gains in the Tadakh areas. Following this declaration, India requested United States military supplies for defense against the Chinese attack. The United States assured India of assistance, as Indian forces retreated from attacking Chinese troops. The crisis abated when China ordered a cease-fire about a month later.

Crisis: Taiwan Straits
Dates: 5/6/62-12/1/62

Country Pair: USA-China (People's Republic)

A new crisis in the Taiwan Straits area began when the Chinese government accused the United States of intruding into Chinese territorial waters. Chinese forces began to shell Quemoy and Matsu Islands for the first time in over two years. The United States became increasingly concerned as China massed troops in the largest mobilization since 1950. The United States government warned China not to interfere with the islands and Formosa. United States President Kennedy declared that the United States would not help Formosa attack the Chinese mainland, but would not stand by if China attacked Formosa. The shelling continued until December, when the crisis abated.

Crisis: Haiti-Dominican Republic

Dates: 4/17/63-5/10/63

Country Pair: Haiti-Dominican Republic (A)

During April, 1963, Haiti police broke into the Dominican Republic's embassy in Haiti and seized refugees. The Dominican Republic warned Haiti to withdraw police from the embassy grounds or face an invasion. The government of the Dominican Republic issued an ultimatum to Haiti to release the refugees. After diplomatic ties were broken, Haiti withdrew forces from the Dominican Republic's embassy. The forces of the Dominican Republic massed on Haiti's border, while the government of the Dominican Republic threatened to invade Haiti unless the promise for safe conduct for the refugees was carried out. The O.A.S. appealed to both countries to refrain from force and settle the dispute peacefully. The invasion threat subsided, and by May 10, the two countries agreed in the United Nations Security Council to let the O.A.S. handle the dispute.

Crisis: Haiti-Dominican Republic

Dates: 8/5/63-9/5/63

Country Pair: Haiti-Dominican Republic (B)

In the beginning of August, 1963, a small invasion force of exiles from the Dominican Republic landed in Haiti. In response, Haiti asked for immediate O.A.S. action and accused the Dominican government of aggression. The Dominican Republic denied the invaders were Dominicans. When new incidents occurred, Haiti mobilized its army and fortified its coastline. Although the O.A.S. drafted a peace plan, incidents and threats continued until the crisis abated in the beginning of September.

Crisis: Kenya-Somalia

Dates: 11/18/63-12/30/63

Country Pair: Kenya-Somalia

In mid-November, 1963, Somalia massed its troops and attacked on its borders with Kenya, warning Kenya to be ready for war. Tension rose as each country accused the other of threatening aggression. On December 12, Somalia raided the Kenya-Somalia borders and Kenya mobilized its troops. The Kenya government declared a state of emergency and sealed off the entire border with Somalia. At this point, Kenya and Ethiopia ratified a mutual defense pact in view of the Somalia threat. The crisis abated at the end of December.

Crisis: Berlin Autobahn

Dates: 10/4/63-11/7/63

Country Pair: USA-USSR

As East German border guards began to delay the Western traffic on the Berlin autobahn, the United States Army reinforced its positions in Berlin. The United States protested strongly to the Soviet Union against the Soviet blocking of a U.S. military convoy. The Soviets continued to halt Western convoys, however. West Germany Chancellor Adenauer warned the Soviets that the West would use force to defend Berlin access rights. Tensions eased by the beginning of November as the Soviet Union allowed Western convoys to pass to Berlin.

Crisis: Algeria-Morocco
Dates: 9/30/63-11/1/63

Country Pair: Algeria-Morocco

In response to a massing of Moroccan troops on the Algerian border, the Algerian government mobilized the entire army. Military incidents occurred on the border. With the aid of Ethiopian Emperor Selassie in negotiations, a cease-fire was signed on October 30th between the two countries.

Crisis: Malaysia

Dates: 9/18/63-10/15/63

Country Pairs: United Kingdom-Indonesia

Malaysia-Indonesia

Shortly after the proclamation of Malaysia as a nation, Indonesia declared the new country illegal and expressed claims to portions of Malaysian territory. Trade with Malaysia was broken off as tensions heightened. The crisis also involved actions against British interests in Indonesia. The dispute abated in mid-October.

Crisis: Cyprus

Dates: 12/21/63-1/30/64

Country Pairs: Greece-Turkey

Greece-Cyprus

Turkey-Cyprus

Towards the end of December, 1963, violent clashes erupted between Greek and Turkish forces on Cyprus. Greece sent Cypriote President Makarios a note expressing concern over the fighting. However, incidents continued until a cease-fire agreement was worked out between the three countries. By December 26, fighting resumed, aided by Turkish and Creek troops and jet fighters from Turkey. The tension continued until January 2, when the three countries accepted a proposal for a London conference to end the strife and to establish a United Nations peace force in Cyprus.

Crisis: Yemen

Dates: 1/5/63-2/22/63

Country Pairs: Yemen-Saudi Arabia

Egypt-Saudi Arabia

During 1962, a civil war occurred in Yemen between Yemen forces and royalists backed by Saudi Arabia. In January, 1963, Egypt accused Saudi Arabia of a massive build-up of armed forces, and refused to withdraw its troops from Yemen. Saudi Arabia claimed it would stop aiding the royalists only after the withdrawal of Egyptian troops, and turned to the United States, urging it to mediate. By February 21, Egypt agreed to withdraw its troops. The United Nations worked out an accord for appointing Ralph Bunche as mediator in the dispute, and the tension in the area abated.

Crisis:

Dates: 2/20/64-3/24/64

Country Pairs: Malaysia-Indonesia (A)

Malaysia

United Kingdom-Indonesia (A)

During February, 1964, Indonesian incursions into Malaysia occurred jointly with incursions by Malaysian guerrillas. Both countries charged each other with aggression as tension rose. The United Kingdom sent jets to Malaysia to help meet the threat from Indonesian forces and planes. The Malaysian government warned Indonesia that it would attack Indonesian bases it. Borneo. By March 5, both United Kingdom and Malaysian troops were moving against Indonesia. The crisis continued throughout March until a semi-cease-fire was arranged.

Crisis: Malaysia

Dates: 8/17/64-11/7/64

Country Pairs: United (ingdom-Indonesia (B)

Malaysia-Indonesia (B)

In August, 1964, the Malaysian government accused Indonesia of invading the Malaysian border. Clashes occurred as Indonesia denied such an invasion took place. Border incidents, warnings and threats continued for several months. Malaysia declared a state of emergency and the United Kingdom sent troops to help the Malaysian government. The crisis abated in November.

Crisis: Ethiopia-Somalia

Dates: 2/8/64-3/30/64

Country Pair: Ethiopia-Somalia

The Ethiopian government declared a state of emergency as Somalian and Ethiopian troops clashed at a disputed border area. On March 30th, Ethiopia and Somalia met in the Sudan and agreed to a cease-fire.

Crisis: Tonkin Gulf

Dates: 8/2/64-8/7/64

Country Pair: USA-North Vietnam

The United States claimed that North Vietnamese boats fired at a United States destroyer in international waters. United States President Johnson announced retaliatory action against North Vietnam PT boats following a second attack on U.S. destroyers, and warned North Vietnam of the consequences of aggression. The incident directly preceded a United States Senate resolution approving U.S. military action against North Vietnam.

Crisis: China (People's Republic)-India

Dates: 9/8/65-9/21/65

Country Pair: India-China

In September, 1965, the Chinese government threatened India with grave consequences unless India dismantled in three days bases on China's side of the Sikkim border. The Chinese government extended the ultimatum for three more days. India charged that Chinese forces started firing across the border. The Chinese government, however, claimed that the crisis was over because India dismantled the bases in question.

Crisis: Kashmir

Dates: 8/9/65-9/22/65
Country Pair: India-Pakistan

In August, 1965, India charged that Pakistan troops were fighting in Kashmir. The Indian government warned Pakistan that it would not negotiate while Pakistan was causing trouble in the Kashmir territory. Indian troops crossed the cease-fire line in Kashmir in an attempt to halt Pakistan infiltration. Fighting countinued until September 22, when both countries agreed to a U.N. proposal for a cease-fire.

Crisis: Jordan-Syria

Dates: 12/1/66-12/23/66

Country Pair: Jordan-Syria

In the beginning of December, 1966, Syrian President Attassi urged Jordanians to overthrow Jordan's leader King Hussein, and offered arms to the Jordanian army. Jordan warned Syria of the consequences of its sending agitators to Jordan. Fighting was sporadic in Jordan. Syria agreed with the Palestine Liberation Organization to overthrow King Hussein. A new government was formed, supporting a hard line against PLO activity in Jordan, and the crisis abated.

Crisis: Rhodesia Blockade

Dates: 4/5/66-4/28/66

Country Pair: United Kingdom-Rhodesia

During March, 1966, an economic embargo against Rhodesia was put into effect. Warships from the United Kingdom intercepted ships from various nations bound for Rhodesia. The United Nations Security Council authorized the United Kingdom to use force to bar tankers from Rhodesia. Rhodesia protested against these acts and warned of grave consequences. The Rhodesian government charged the United Kingdom with illegal use of force against Rhodesia. By April 28, both the United Kingdom and Rhodesia agreed to talk and the crisis subsided.

Crisis: Sino-Soviet

Dates: 1/11/67-2/14/67

Country Pair: USSR-China (People's Republic)

As tensions increased for the first time in two years, the Soviet Union increased its military forces on Soviet borders with China. Chinese students in the Soviet Union clashed with USSR police, and the USSR portested the episode. The Chinese government assailed the Soviet Union, accusing it of beating Chinese students. Massive demonstrations occurred in Peking against the USSR embassy, which included the participation of Chinese armed troops. The Soviet Union warned China of plans to move 60,000 Soviet troops to the Chinese border. The Chinese troops held USSR personnel inside the Peking embassy, resulting in a demand from the Soviet government that the embassy personnel be freed. Soon after, the Chinese government announced an alert of Chinese border forces in response to the Soviet border mobilization. On February 14, the Chinese lifted the seige of the Soviet embassy and Soviet personnel were permitted to leave China, as the crisis subsided.

Crisis: Arab-Israeli

Dates: 5/17/67-6/5/67

Country Pairs: Israel-Syria

Israel -Jordan

Israel-Lebanon

Israel-Egypt

In May, 1967, Syria announced that it was prepared for action against Israel, and accused Israel of building up troops on the Israeli-Syrian border. At the same time, the United Nations announced that the U.N. Emergency Force (UNEF) had been ordered to withdraw from the Israeli-Egyptian line by Egypt. The Arab League Council declared that an attack against any Arab state would be considered an attack against all Arabs. As the Egyptian government ordered a blockade of Israeli ships through the Straits of Tiran at the Gulf of Aqaba, both Egypt and Israel military reserves were mobilized. Israel called the blockade an act of aggression against Israel. Tensions worstened as Egypt and Jordan signed a mutual defense pact placing Jordan troops under Egyptian command. War broke out on June 5th.

Crisis:

Cyprus

Dates:

11/16/67-12/1/67

Country Pairs:

Greece-Turkey

Greece-Cyprus

Turkey-Cyprus

In mid-November, 1967, Turkish troops began mobilizing as clashes between Greek and Turkish Cypriotes threatened to start war between Turkey and Greece over Cyprus. Tensions increase as both Greece and Turkey exchanged protests over the Cyprus situation. By December, however, both Greece and Turkey agreed to an internationally mediated agreement resolving the immediate Cyprus issues.

Crisis:

Hong Kong

Dates:

6/27/67-12/1/67

Country Pair:

United Kingdom-China (People's Republic)

Towards the end of June, 1967, the Chinese government threatened to take control of Hong Kong. Hong Kong police were killed in a clash on the China-Hong Kong border. The United Kingdom accused China of mobilizing on Hong Kong borders, and called up its troops. On August 4, Chinese border troops crossed into Hong Kong and clashed with United Kingdom troops. This occurred again August 9. Hong Kong sealed the borders with China. China, however, demanded the re-opening of the border. Tense relations continued through October and November, but by December, China reported that the United Kingdom accepted conditions to ease border tensions, and the crisis abated.

Crisis: Israel-Jordan

Dates: 1/2/68-3/30/68

Country Pair: Israel-Jordan

Early in January, 1968, shelling began on the Israeli-Jordan border. Each country accused the other of provoking the shelling. The Jordanian government charged Israel with aggression and called on the United Nations to discuss the dispute. Israel accused Jordan of killing Israeli citizens. Soon after, Israeli jets crossed to Jordan in the heaviest duel since the 1967 Mideast war. Israeli forces crossed into Jordan to raid PLO bases. The forces of both nations were engaged in battles over the border. By the end of March, however, tension forcused on other Arab-Israeli problems, and the crisis abated.

Crisis: Pueblo Incident
Dates: 1/23/68-2/26/68
Country Pair: USA-North Korea

In January, 1968, a U.S. Navy ship, the U.S.S. Pueblo, was seized by North Korean boats near North Korea and accused of spying. United States President Johnson ordered 15,000 Air Force and Navy reservists to active duty as concern mounted over the seizure of the ship. The United States appealed to the United Nations Security Council to obtain the return of the Pueblo and its crew. North Korea charged the United States with aggression and refused to return either the ship or its crew. Tensions mounted as North Korea continually rejected United States demands to release the prisoners. The United States nuclear aircraft carrier Enterprise was sent to Korean waters; however, all demands and appeals by the United States were ignored by North Korea. The crisis eventually quieted, though the ship and its crew were not released for a year.

Crisis: Czechoslovakia

Dates: 7/16/68-10/4/68

Country Pair: USSR-Czechoslovakia

Alarmed at the increased liberalization of the Czechoslovakian regime, Warsaw Pact countries, led by the Soviet Union, warned Czechoslovakia that its liberalization program was unacceptable. Warsaw Pact countries held exercises of military forces but did not withdraw the troops from Czechoslovakian territory. On the Soviet-Czech border, the Soviet Union held large-scale maneuvers of support and supply troops. On August 10, the Soviet Union announced the start of new Warsaw Pact military exercises along the Czechoslovakian border. Despite repeated warnings, the Czechoslovakian government refused to discard its liberalization program, and on August 20, was invaded by the Soviet Union and Warsaw Pact forces, excluding Rumania. Czechoslovakian leaders were arrested, and consultations were held with Soviet authorities. As Soviet military units began to withdraw from Czechoslovakia, Czech leaders acceded to demands that liberalized policies be ended. The Czechoslovakian government agreed to indefinite stationing of Soviet troops on Czechoslovakian soil, and the crisis ended.

Crisis: Honduras-El Salvador

Dates: 6/30/69-7/30/69

Country Pair: Honduras-El Salvador

As a result of a dispute over the expulsion of El Salvador settlers from Honduras, El Salvador severed diplomatic relations with Honduras. As troops from both countries massed on their common border, the O.A.S. held an emergency meeting to hear charges from both sides. The Honduras government accepted a three-nation mediation committee's proposal for peace with El Salvador, but a week later charged that El Salvador's troops had penetrated 40 miles into Hondruan territory. On July 16, El Salvador claimed capture of several Honduran towns and called for the surrender of the Honduran army. El Salvador refused to withdraw troops from Honduras unless certain demands were guaranteed by the O.A.S. On July 29, El Salvador agreed to redeployment of its troops from Honduras in the face of a threatened O.A.S. embargo. The crisis ended when the O.A.S. foreign ministers approved a peace agreement between the two countries.

Crisis: Middle East

Dates: 2/24/69-4/23/69

Country Pairs: Egypt-Israel

Syria-Israel

In February, 1969, Israeli jets bombed PLO commands in Syria. In response, Egypt declared a state of emergency and warned that war could result if Israel did not cease its aggression. The United Nations Secretary-General U Thant warned that the situation could escalate into war. Egypt announced that it considered void the cease-fire agreement that ended the June, 1967 Mideast war. Tensions remained high between the three countries, but eased in April, 1969.

Crisis: USSR-China (People's Republic)

Dates: 3/2/69-4/11/69

Country Pair: USSR-China

In early March, 1969, Soviet and Chinese border forces engaged in fighting over Chenpau Island, a disputed territory in the Ussuri River. The border clashes continued, and demonstrations took place at both the Soviet embassy in Peking, and the Chinese embassy in Moscow. Clashes continued throughout March, accompanied by mounting accusations of aggression from both sides. By April, the Soviet Union proposed resumption of border negotiations, and the crisis abated.

Crisis:

Jordan

Dates:

9/6/70-9/23/70

Country Pairs: USA-USSR

USA-Syria

Israel-Syria

Jordan-Syria

During the summer of 1970, a civil war occurred in Jordan. provoked by the PLO, which was determined to destroy King Hussein's regime in order to obtain permission to use Jordan as a base for PLO excursions into Israel. On September 6, the PLO hijacked three commercial airlines in West Europe and forced them to land in the Jordanian desert. The hijackers held 475 Americans hostage and threatened to kill them unless all PLO prisoners in West Germany, Switzerland and Israel were released. Jordan's King Hussein asked for help from the United Nations and the United States. The PLO blew up the three planes, but continued to hold the hostages. Syrian tanks mobilized, and the United States received reports that USSR advisors were moving towards Jordan. United States President Nixon said that the United States might have to intervene in Jordan if Syria or Iraq threatened the Jordanian regime. By September 17, Syrian tanks had moved closer to the Jordan frontier. The United States alerted its troops as 100 Syrian tanks crossed into Jordan, and warned the Soviet Union to restrain Syria. Fighting broke out between Syrian and Jordanian government troops in Jordan. On September 21, the United States alerted its troops in West Germany, and its Sixth Fleet. At the same time, Israel moved its troops to the northern borders of Syria. By September 22, however, Jordan launched an all out attack against Syrian troops and won. Syria withdrew from Jordan, beginning September 23, and the crisis abated.

Crisis: Uganda-Tanzania

Dates: 7/9/71-9/15/71

Country Pair: Uganda-Tanzania

Early in 1971, Uganda President Obote was ousted by General Amin, who took over the Ugandan government in a military coup. In July, 1971, the Tanzanian government demanded that former President Obote be reinstated in Uganda. General Amin accused Tanzania of encouraging guerrilla movements against his regime and warned that any plane entering Uganda air space would be shot down. General Amin threatened to attack any Tanzanian ships approaching Uganda and warned that his forces would not hesitate to strike into Tanzania if necessary. The Uganda government closed the borders, as tension between the two countries heightens. Uganda accused Tanzania of beginning fighting on its borders, as Tanzania accused Uganda of sending troops and tanks across the border to Tanzania. By October, tensions ease, and the two nations agree to try to reconcile differences.

Crisis: Bangladesh

Dates: 12/2/71-12/16/71

Country Pair: India-Pakistan

In December, 1971, India Prime Minister Gandhi threatened war against Pakistan unless the Bengalis in East Pakistan were given the independence which they desired. On December 2, the Indian army crossed its border into Pakistan, and Pakistan retaliated against India. Bangladesh (East Pakistan) declared the formation of a new government, and the Indian government recognized it as the formal representative government of East Pakistan. Pakistan broke diplomatic relations with India. On December 16, the conflict ends with Pakistan split into two separate states—West Pakistan and Bangladesh.

Crisis: Uganda-Tanzania

Dates: 9/17/72-10/5/72

Country Pair: Uganda-Tanzania

In September, 1972, Uganda attacked Tanzania in retaliation for Tanzania's alleged support of pro-ex-Uganda President Obote guerrillas acting against Uganda. Tanzania accused Uganda of bombing its border and denied the Uganda charges that Tanzania forces attacked. The Tanzanian government mobilized its troops on the Uganda border, and warned that Uganda's bombing raids were a danger to peace. The African Unity Organization met in an effort to mediate the crisis, and a peace agreement was reached October 5.

Crisis: Rhodesia-Zambia
Dates: 1/9/73-2/4/73
Country Pair: Rhodesia-Zambia

Early in January, 1973, the Rhodesian government warned Zambia against giving sanctuary to anti-Rhodesian guerrillas, and warned of retaliation. Border clashes occurred as Zambia accused Rhodesia of aggression. The Rhodesian government, in response to the accusation, closed its borders with Zambia. By February 4, however, Rhodesia agreed to reopen the Rhodesia-Zambia borders, and the crisis eased.

Crisis: Mideast

Dates: 10/1/7 10/6/73

Country Pairs: Israel-Egypt

Israel-Syria

On October 1, Israeli intelligence reported a build-up on the Syrian and Egyptian borders by Arab troops. On October 2, Syria mobilized its reserves, and Egypt began intense war preparation along the Suez Canal. Both Syria and Egypt evacuate Soviet dependents from their respective capitals. By October 5, Syria's tanks swung into offensive formation, and Israeli troops robilized. As Israel urged the United States to use its influence to avoid a war, the United States warned Israel not to attack the Arab states. On October 6, war broke out as Egypt and Syria attacked Israel.

Crisis:

Mideast

Dates:

10/7/73-10/25/73

Country Pair:

USA-USSR

After the outbreak of war in the Mideast, the United States Secretary of State Kissinger met with the Soviet Ambassador to the U.S., Dobrynin to discuss the Mideast crisis. Although both parties expressed a desire for peace, on October 10 there was a huge Soviet airlift of arms to Syria and Egypt, and the Soviet government urged the Arabs to join in the war against Israel. The United States learned that Soviet airborne divisions in Europe were put in alert, and warned of consequences of Soviet interference. As the Soviet Union continued to aid the Arabs, the crisis reached dangerous proportions. The United States placed all forces on nuclear alert. By October 16, the tide of the war has turned in favor of Israel, and the Soviet Union called for a cease fire. The crisis between the United States and the Soviet Union abated by October 26, although the war in the Mideast continued.

### INTRODUCTION

v.

A task of this project is to typologize international crises along dimensions having policy and theoretical import. policy importance of a crisis dimension consists in its reflecting a basic discrimination of policy makers and planners in viewing crisis. For example, variables such as the power comparison of opposing crisis participants (e.g., major-power crises vs. minor-power crises) and their alliance connections to the US and USSR probably have high policy import for the defense community. The theoretical import of a crisis variable is its potential ability to discriminate among crises in terms of their likely behavior patterns, their outcomes, the effectiveness of different crisis management techniques, and other aspects of crises that are relevant to a program of research in crisis management. In this regard, variables that theoretically affect crisis behavior patterns, outcomes and so forth are potentially useful dimensions for a crisis typology.

The criteria of policy import and theoretical import often overlap in the selection of crisis variables. This occurs because policy-oriented dimensions often have theoretical import as well. For example, a US policy maker or planner may have an especially strong interest in major-power crises and crises involving allies of the US or USSR. Such variables thus have policy import, and they have theoretical import as well, for the power relationship of crisis participants and their alliance connections to the superpowers may have important effects on their behavior tendencies and the crisis management techniques that are most likely to be effective.

Additional variables that have such theoretical import can usefully be included in a typology even if they are not among those ordinarily used by policy makers and planners to discriminate among crises. Their potential usefulness stems from the resulting ability of research to enhance its answers to policy-oriented questions. For example, a policy-oriented question may concern the likely behavior pattern of countries in major-power crises. The crisis typology will will identify such crises, and research can proceed to answer the question. In addition, however, if the typology includes the theoretically important dimension of economic interdependence between crisis participants, research can further investigate whether the extent of interdependence makes any difference in major-power crisis behavior. Thus, the inclusion of theoretically important variables that may not reflect central policy discriminations allows research to enhance its answers to policy-oriented questions and, at the same time, does not detract from the presence and usefulness of policy dimensions.

Information on 23 variables was collected for the crises identified. Two of these--crisis participants and dates--are described in a previous section of this report. Below, the other 21 variables are described. A separate section on each variable provides a rationale for its selection, describes the coding of the variable, and lists sources from which the data were gathered. As the previous section pointed out, the cases are organized into crisis country-pairs. Thus, the coding of each variable is on a country-pair basis.

### POWER COMPARISON

This variable distinguishes crises according to the comparative power of the opposing countries. The coding is as follows:

Power Comparison	Code
Major-Major	1
Major-Middle	2
Major-Minor	3
Middle-Middle	4
Middle-Minor	5
Minor-Minor	6

Each country in a crisis country-pair is determined to be either a major power, a middle power or a minor power. Then, the country-pair is coded according to the power combination of its constituent actors. The power comparison variable reflects a basic discrimination of policy relevance and also possesses a degree of theoretical import. Richardson (1960), for example, argues that the relative power of nations affects their likely behavior toward one-another.

Three factors are regarded as major elements or determinants of a country's power: military capability, economic capability and population size. A country is defined as a major power if it is in the upper one third of the worldwide range in at least two of these three variables: defense spending, GNP and population size (data used are for the year of the crisis). A country is defined as a minor power if it is in the lower one-third on at least two of the variables. Otherwise, the country is defined as a middle power. Because a nuclear capability is a major qualitative component of power, if a country possesses such capability it is coded at one level higher than it would be using only the above criteria. A country is regarded as having nuclear capability as of the date of its first successful nuclear weapons test. World ranges of each variable were determined on the basis of the lowest and highest value in the world for each year for each variable. Then each range was divided into thirds.

Data sources used for the construction of this variable are:

Arthur Banks, Cross-Polity Time-Series Data. M.I.T. Press, 1971.

World Armaments and Disarmament: SIPRI Yearbook.
Humanities Press, New York, various issues 1968-1973.

The Military Balance, The International Institute for Strategic Studies. London, various issues 1973-1975.

World Military Expenditures and Arms Trade. U.S.A.C.D.A., Washington, D.C., various issues 1963-1973.

Gross National Product: Growth Rate and Trend Data. A.I.D., Washington, D.C., 1968.

#### GNP COMPARISON

and

# MILITARY BUDGET COMPARISON

and

### POPULATION SIZE COMPARISON

The three constitutent elements in the Power Comparison measure above are GNP, military budget and population size. For the same reasons given above these variables may have importance separately as well as in combination. Thus, one variable comparing the crisis nations on each constituent element is included in the crisis data file.

The variables measure the absolute difference between the nations on GNP (in million US \$), military budget (in million US \$), and population size (in millions). Data sources for these variables are listed in the Power Comparison variable description.

## TYPE OF ISSUE

The type of issue about which a crisis revolves is coded as follows:

Type of Issue	Code
Territorial/Hegemor.ial	1
Domestic Government	2
Treatment of National or	3
Property	
Access and Use Rights	4

Rosenau (1966) is an advocate of the idea that the type of issue involved in a given situation has a considerable impact on the likely behavior of the involved countries, and this variable may be an important policy dimension as well. Rosenau proposes a four-category classification of issues consisting of the following types: territorial, status, human resources and nonhuman resources. Originally we intended to utilize Rosenau's issue categories, but we were dissuaded by two considerations. First, classification of cases into Rosenau's categories is problematic due to a degree of non-exclusivity in the categories. For example, any dispute over territory involves also the human and nonhuman resources present in that territory. Second, there are issues in our crises that do not neatly fit into any of Rosenau's categories, for instance when the issue is the nature of a country's domestic government.

The course we chose was to derive the issue categories from the crisis descriptions themselves. This procedure led us to identify the above four types. A <u>Territorial</u> issue is one in which the crisis involves disputed territory or an attempt by one country to take possession of another's territory.

Hegemonial issues, of which the Cuban Missile Crisis is a prime example, involve an attempt by one nation to establish a military base in another's area of hegemony. <u>Domestic Government</u> is the issue when the crisis involves one nation's support or alleged support of anti-regime forces in another country.

Treatment of Nationals or Property issues are those involving conflict over one nation's treatment of another's nationals, representatives or economic interests. Access and Use Rights

issues involve attempts or alleged attempts of one country to violate the rights of another to utilize or have access to territory, waters, travel corridors, etc.

## NUCLEAR WEAPONS

Whether or not a crisis involves nations having nuclear weapons is an important factor from the standpoint of their possible behavior patterns and also from the policy perspective of US interest and possible involvement. With regard to the effect of nuclear weapons on behavior, for example, Snyder (1969) argues that nuclear weapons induce a measure of caution in crisis behavior.

Three possible codes are applied to a crisis-pair at the time of the crisis in this regard:

Nuclear	Wear	oons		Code
Neither	has	nuclear	weapons	0
One	11	11	11	1
Both ha	ve	11	*1	2

A country is coded as having nuclear weapons as of the date of its first successful nuclear weapons test. The source of information for the codes given in the crisis data file is:

World Armaments and Disarmament: SIPRI Yearbook. Humanities Press, New York, various issues 1968-1973.

# REGION

The region within which a crisis is located, or the regions which it involves, has important implications for whether U.S. military involvement is likely and if so, the type of military capability that may be required to succes ully intervene.

Region is a significant policy variable also because much military planning occurs with reference to particular global regions.

We utilize the regional breakdown of the <u>United Nations</u>

<u>Statistical Yearbooks</u>, in which seven regional categories are included. These categories and the codes used in the crisis data file are:

Region	Code
Africa	1
North America	2
South America	3
Asia	4
Europe	5
Oceania	6
USSR	7

Often the nations in a crisis-pair are from different world regions. In such cases a two-digit code is applied, each digit representing one of the regions involved. In order to be consistent, the smaller digit always is listed first. For example, a crisis country-pair involving North American and Asian nations would receive a region code of 24.

The data source used to identify the appropriate regional classification of a nation is the <u>United Nations Statistical</u> Yearbook.

# GEOGRAPHICAL DISTANCE

The possible behavior patterns in, and outcomes of, a crisis can be affected by the geographical distance between nations of a crisis-pair. Weede (1970), for example, argues that sheer distance makes war less probably between nations. Thus geographical distance may affect the behaviorial tendencies of involved nations, the likelihood of different outcomes, and therefore US military preparedness required in a given crisis.

The crisis data file contains a measure, in units of miles, of the distance between the capitals of the crisis nations during the time of the crisis. These measures were made by applying a mileage meter to a straight line connecting the two capitals on a large gnomic projection map. Such a map minimizes the possible error involved in this procedure, and error can be expected in the range of from five to ten percent.

## CONTIGUITY

A measure of distance between capitals can often be misleading as to the military reachability between pairs of countries. In particular, it can be misleading when one of the countries has a very large land mass. Parts of the land mass may actually touch the other crisis nation while the distance between the two capitals is quite large. Thus a contiguity measure also is included in the crisis data file.

A pair of nations is coded as contiguous if their land masses touch or are separated only by a river or canal. Countries separated by gulfs or straits are coded as non-contiguous. Crisis-pairs separated by straits are Haiti-Cuba, Spain-Morocco, and US-USSR; Jordan-UAR are separated by a gulf. The coding for the year of the crisis is as follows:

Contiguity	Code
yes	1
no	0

## SUPERPOWER DEFENSE PACT

US policy-makers and planners have a special interest in crises that involve the allies of either the US, the USSR or both, for the involvement of the superpowers may be more—likely under such conditions. Thus, crisis-pairs are coded according to the superpower alliances they have at the time of the crisis. The coding is as follows:

Superpower Defense Pact *	Code
Neither country has a superpowed defense pact	er 0
One country has a defense pact US; the other has no superpowed defense pact	
One country has a defense pact US; the other with USSR	with 2
One country has a defense pact USSR; the other has no superport lefense pact	
Both countries have a defense with US	pact 4
Both countries have a defense paith USSR	pact 5

Defense pacts are particularly important in that the signatories obligate themselves to intervene militarily on behalf of one another if either is attacked.

The data sources for these codings are:

1946-1965: Melvin Small & J. David Singer, "Formal Alliances, 1816-1965: An Extension of the Basic Data." <u>Journal of Peace Research</u>, 1969.

1966-1973: United Nations Treaty Series.

### SUPERPOWER ALLI NCE

This second variable dealing with superpower alliance measures whether the crisis nations have a superpower arrangement of the neutrality pact, entente or defense type, and thus has broader coverage than the preceeding variable in terms of formal major-power linkages to a given crisis. Neutrality pacts and ententes do not obligate nations to intervene militarily on behalf of one another if either is attacked, but do obligate the nations either to consult with one another or to be neutral in event of attack.

<sup>\*</sup>The US and USSR are not coded as having defense pacts with themselves.

Superpower Alliance*	Code
Neither country has a superpower alliance	0
One country has an alliance with US; the other has no superpower alliance	1
One country has an alliance with US; the other with USSR	2
One country has an alliance with USSR; the other has no superpower alliance	3
Both countries have an alliance with US	4
Both countries have an alliance with USSR	5

The data sources for these codings are:

1946-1965: Melvin Small & J. David Singer, "Formal Alliances, 1816-1965: An Extension of the Basic Data." <u>Journal of Peace</u> Research, 1969.

1966-1973: United Nations Treaty Series.

## DEFENSE PACT SIMILARITY

Kaplan (1957) argues that if two nations are in the same alliance, it is less likely that they will enter into war against each other. Thus, alliance similarity—its presence or absence—may have important effects on the likely behavior of the crisis nations and the likelihood of different outcomes.

This variable codes crisis-pairs according to whether they had membership in the same defense pact--the strongest type of alliance--at the time of the crisis. The coding for this variable is as follows:

<sup>\*</sup>The US and USSR are not coded as having alliances with themselves.

Defense Pact Similarity	Code
Pair shares membership in at least one defense pact	1
Pair does not share membership in	0

Sources of information for this variable are:

1946-1965: Melvin Small & J. David Singer, "Formal Alliances, 1816-1965: An Extension of the Basic Data." <u>Journal of Peace</u> Research, 1969.

1966-1973: United Nations Treaty Series.

### ALLIANCE SIMILARITY

This second variable dealing with alliance similarity codes the pair according to whether they share membership in any neutrality pact, entente or defense pact, and thus has broader coverage than the Defense Pact Similarity variable. Coding for this variable is as follows:

Alliance Similarity	Code
Pair shares membership	1
Pair does not share membership	0

The sources of information for this variable are:

1946-1965: Melvin Small & J. David Singer, "Formal Alliances, 1816-1965: An Extension of the Basic Data." <u>Journal of Peace</u> Research, 1969

1966-1973: United Nations Treaty Series.

### NUMBER OF PRIOR CRISES

McClelland (1968) and others have argued that pairs of countries tend to develop routine ways of dealing with crises over a history of such episodes. Thus, it may be anticipated that, other things being equal, a country-pair that is experienced in crises with each other will tend to behave differently from an inex-

perienced pair. From a policy standpoint, research emphasizing crisis-prone country-pairs may be especially desirable in order to generate knowledge relating to country-pairs that may be more likely to experience crises in the future.

The measure employed in the data file is the simple frequency of post-war crises involving the two countries prior to the time of the crisis in question.

## POLITICAL STRUCTURE DIFFERENCE

Several writers, among them Kissinger (1969), suggest that the international behavior involved in any situation is in part a product of whether the countries involved share a similar political structure. Kissinger regards political structure as indicative of general cultural values which influence countries' perceptions of each others' behavior and influence their willingness to trust each other. In particular, countries having different political systems will have more difficulty solving issues. Thus, political structure difference can be a useful dimension of the typology in that the dimension is theoretically related to behavorial patterns.

The political structure difference measure is nominal in character, indicating similarity or dissimilarity in actual structure, and also indicating the type of similarity or difference in each case. Each nation's <u>effective</u> executive type is used to describe its actual political structure. The effective executive refers to the "individual who exercises primary influence in the shaping of most major decisions affecting the nation's internal and external affairs." (Banks, 1971, p.xvi)

Banks (1971) presents data through 1966 on all nations' effective executive type, in the following categories: Monarch, President, Premier (or Prime Minister), Military, Other. The "Other" category refers to situations in which the effective

executive (such as the party first secretary in a Communist regime) holds no formal governmental post. The coding of political structure difference at the time of the crisis in the data file is as follows:

First digit: 0 if different effective executive type 1 if same " " "

Second and

third digit: If same effective executive type, then

- 01 Monarch
- 02 President
- 03 Premier
- 04 Military
- 05 Other

If different executive type, then the codes 1-5 are combined to indicate the particular combination, the smaller number always being given first. For example, a country-pair in which one country's effective executive type is a President and the other's is Military would have a total code of 024; a country-pair in which both are Monarchies would be coded 101.

The data sources for this variable are:

1946-1965: Arthur Banks, Cross-Polity Time-Series Data.

M.I.T. Press, 1971.

1967-1973: Europe Yearbook and Statesman's Yearbook.

## PRIOR ISSUE RELATIONS

and

### PRIOR DIPLOMATIC RELATIONS

Pruitt and Snyder (1969) note that pre-existing hostility between two countries prods them toward harsher tactics and words, and may close off conciliatory alternatives. Thus, crises between previously hostile countries may be fundamentally different from those between previously friendly countries in terms of the likelihood of different behavior patterns and outcomes, and these different likelihoods may have different implications for US military involvement and planning.

In the past, hostility has been measured via content analysis of written and verbal expressions of decision-makers. It is not possible to conduct such analyses for the crisis data file. However, two types of data that may be related to hostility are available. First, the record of UN General Assembly voting is available and a reasonable assumption is that country-pairs having more disagreement in their voting tend to be more hostile toward one another. The relationship between hostility and voting disagreement very likely is not perfect, but one may be a fair indicator of the other. Second, countries that are hostile toward one another often express their hostility by withholding diplomatic relations. Thus, two indicators of hostility are UN General Assembly voting disagreement and the presence or absence of diplomatic relations between the country-pair.

Scores for UN General Assembly voting disagreement in the General Assembly session preceeding each crisis are being suplied by Mr. Rodney Tomlinson of the United States Naval Academy. The scores and documentation for the measure will be received by us shortly.

The presence or absence of diplomatic relations at the outbreak of each crisis is measured by whether embassies or legations of each country are located in the other at the outbreak of the crisis. Codes for this variable are:

Diplomatic Relations	Code
Neither has representatives in the other	0
Only one country has representatives in the other	1
Each has representatives in the other	2

The sources of data for this variable are:

The Europe Yearbook. Europe Publications, London, various issues 1960-1974.

The Statesman's Yearbook. Oxford University Press, London, various issues 194'-1974.

# ECONOMIC INTERDEPENDENCE

Pruitt (1969) points out that escalation into violent conflict between pairs of nations may be less likely when the nations are highly interdependent economically. Thus, economic interdependence may affect the likelihood of different behavior patterns and outcomes in crisis, and these implications in turn may affect considerations of military preparedness and policy choice.

Economic dependence has in the past been measured by a nation's trade with another as a percentage of the nation's total wealth (Russett, 1968). Economic interdependence is measured in the crisis data file by the value of total trade (in U.S. dollars) between the crisis-pair as a percentage of the summed wealth (GNP in dollars) of the two nations. This measure reflects the importance of trade between the two countries relative to their total wealth.

The sources of data for these calculations are:

International Monetary Fund Direction of International Trade, various issues 1945-1973

United Nations, <u>Yearbook of International Trade</u>, various issues 1954-1971

World Military Expenditures and Arms Trade. U.S.A.C.D.A., Washington, D.C., various issues 1963-1973.

Gross National Product: Growth Rate and Trend Data. A.I.D., Washington, D.C., 1968.

## ORGANIZATIONAL INTEGRATION

Smoker (1967), among others, suggests that organizational integration between countries may enhance the likelihood that violence can be avoided. Country-pairs having membership in several International Governmental Organizations (IGO's) are characterized by a history of cooperation and nututal learning. To the extent that a tradition of cooperation and a history of understanding allow a country-pair to more easily resolve a crisis between them the crisis behavior patterns and the likelihood of different outcomes will be affected.

Organizational integration at the governmental level is measured by the number of IGO's in which the pair of crisis nations shares membership at the time of the crisis.

The data source is:

United Nations, Yearbook of International Organizations, various issues 1949-1973.

### POPULATION PRESSURE COMPARISON

Haas (1965) suggests that conflicts between countries when one of the countries is suffering high population density may be especially explosive. This is suggested because such a country may find in a crisis situation an opportunity for needed territorial expansion, especially if the other country involved is contiguous and has a lower population density. Thus, the comparative population densities of crisis countries may have a significant effect on the course of the crisis and therefore possibly on US concern or involvement.

The measure utilized in the crisis data file is the absolute difference between the population densities of the two countries.

Data on population density were gathered from the following sources:

Arthur Banks, Cross-Polity Time-Series Data, M.I.T. Press, 1971.

World Military Expenditures and Arms Trade. U.S.A.C.D.A., Washington, D.C., various issues 1963-1973.

### MULTINATION CRISES

As noted above, several comparative elements of a crisis—e.g., comparative power, comparative political systems—and several other dyadic elements such as prior crises, may have significant implications for the likely behavior of the crisis participants, required US military capability should such involvement become necessary, and the likely effectiveness of different means of crisis management. Thus, such factors can usefully serve as dimensions of a crisis typology that will be meaningful for US planners and policy-makers.

A problem arises in applying such dimensions to multination crises, defined as crises in which at least one "side" of the issue involves more than one nation. For example, the Suez crisis of 1956 involved the UK and France on one side, and various Berlin crises have involved NATO and Warsaw Pact countries in opposition. How, for instance, does one go about comparing the political systems of different sides when there may be differences within one side, or establishing the number of prior crises between the sides when some pairs have had prior crises and others have not?

Our resolution of this problem follows from what we believe would be the perspective of US policy makers and planners on multination crises. US policy must and does take into consideration the peculiarities of individual dyadic relationships in addition to the implications of multination alliances and

alignments. For example, while policy makers have been concerned with the US position in the general Arab-Israeli confict, they have not failed to consider and exploit differences among the various Arab states in attemping to achieve policy goals in the Middle East. Thus one is led to to expect that policy makers and planners would be concerned with possibilities for managing a crisis as it affects specific pairs of nations in a multination crisis.

Since the specific dyadic components of multination crises are of likely interest to these potential users of crisis research, their interests will be served by investigating the implications of different types of dyad-specific characteristics for crisis management. Therefore, a decision was made, as noted earlier, to disaggregate the opposing sides of multination crises into their specific dyadic components. For example, the 1956 Suez crisis contains two such components: UK-Egypt and France-Egypt. These pairs may be categorized according to the same dimensions utilized for two-nation crises. However, the fact that such pairs are components of multination crises is important contextual information that should be retained and integrated into the crisis typology. Therefore an additional variable in the crisis data file signifies whether or not a crisis country-pair is one of more than one represented in the data file from a particular crisis. Country-pairs extracted from the same crisis are coded the same on this variable. The coding is as follows:

Multination Crises	Code
Country-pair is extracted from a multination crisis	1n
Country-pair is not extracted from a multination crisis	О

where n is the total number of multination crises. For example, three country-pairs involved in the same multination crisis

have the same code given in this variable; two country-pairs from a second multination crisis share a common code in this variable, and the code differs from that used for the first multination crisis.

### VI. CRISIS DATA FILE

Data for the variables specified in Section V were compiled for each crisis country-pair and are presented in the matrix on the following pages. A few missing data remain, coded "-9" in the matrix. Efforts are being made to find sources for the remaining missing data. Data for one variable--Prior Issue Relations-- are in route to us from the supplier. The variables are described in Section V; the cases in Section IV.

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India-Pakistan	1947	6	10646	283	267	1	0	4	750
China-Mongolia	1947	6	-9	1095	456	3	0	4	1920
USA-USSR	1948	2	272760	8034	49	4 .	1 (	27	7687
Costa Rica-Nicaragua	1948	. 6	15	3	0	2	0	2	187
USA-North Korea	1950	3	-9	- 9	144	1	1	24	12000
Ecuador-Peru	1951	6	1021	30	. 6	1	0	3	800
United Kingdom-Egypt	1951	. 6	66378	4305	158	4	0	15	2812
Yugoslavia-USSR	1951	3	117140	10630	188	2	1	5 7	1451
India-Pakistan	1954	6	16210	333	297	1	0	4	750
USA-China	1954	3	438300	44415	432	1	1	4 2	8625
India-Portugal	1955	6	22540	439	60	1	0	4.5	5951
USA-China	1955	3	466400	41928	442	1	0	42	8625
Costa Rica-Nicaragua	1955	. 6	22	5	0	2	0	2	187
United Kingdom-Egypt	1956	5	75654	4661	27	4	1	51	2812
France-Egypt	1956	6	59554	3627	20	4	0	51	2554
. Israel-Egypt	1956	. 6	1172	172	22	4	. 0	14	304
Hungary-USSR	1956	. 5	180400	10652	190	2	1	57	1358
Burma-China	1956	6	32854	2424	601	1	0	4	2273
France-Tunisia	1957	6	64960	4022	40	4	0	15	1192
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Indonesia-Netherlands	1957	6	12471	185	74	1	0	45	8531
Honduras-Nicaragua	1957	. 6	8	2	0	1	, 0	2	161
Lebanon-Egypt	1958	6	3188	189	22	2	0	14	398
USA-Egypt	1958	. 3	505255	46228	148	2	1	12	7406
USA-China	1958	3	462900	43932	471	1	, 1	24	8625
USA-USSR	1958	2	283900	36032	32	4	2	27	7687
Egypt-Sudan	1958	, 6	2770	209	14	1	0	1	378
Tunisia-France (A)	1958	, 6	66690	3608	40	4	0	1.5	1392

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	6	410	109	7	1	0	4	468
	5	75502	4662	45	1	1	45	3398
	1	273100	8808	34	2	2	27	7687
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1962	1	302300	9381	34	1	2	27	7687
1962	6	30000	2934	257	1	0	4	2764
1962	3	498300	48381	523	1	1	24	8625
	6	662	27	0	3	0	2	161
1963	6	662	27	0	2	0	2	161
	6	782	2	7	1	0	1	656
1963	1	322500	6295	36	4	2	27	7687
1963	6	323	4	1	1	0	1	656
1963	5	81575	46	46	1	1	45	8906
1963	6	2221	45	91	1	. 0	4	750
1963	6	2300	171	22	1	0	45	630
1963	6	4344	178	7	1	0	45	525
1963	6	6644	349	29	1	0	4	325
1963	6	723	101	1	2	0	. 4	600
1963	6	3037	265	26	2	0	14	1000
1964	6	2279	71	94	1	0	4	750
1964	5	88347	5445	49	1	1	45	8906
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1031	0	4	4	1	1	0	023	1	.0004	24	115	0	
2250	1	3	3	0	0	0	015	0	.0000	1 .	9	0	
468	1	0	0	1	1	0	014	0	.0008	1	10	4	
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7687	0	0	0	0 .	0	3	023	2	.0000	18	26	0	
<b>5</b> 951	0	1	1	0	0	ı	103	0	.0001	21	81	0	
7687	0	0	0	0	0	4	023	2	.0000	18	26	0	
7687	0	0	0	0	0	5	023	2	.0000	17	26	0	
2764	1	0	0	0	0	0	035	2	.0000	0	166	0	
8625	0 .	0	0	0	0	3	025	0	.0000	0	131	0	
161	1	4	4	1	1	0	024	2	.0000	34	188	0	
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8906	0	1	1	0	. 0	. 0	023	2	.0021	31	398	5	
750	1	0	. 0	0	. 0	. 0	023	. 2	-9	7	91	5	
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7687	0	0	0	0	0	7	025	2	.0001	25	26	13
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250	1	0	0	1	1	1	015	0	.0063	22	15	13
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